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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/726,587	12/04/2003	Carlo Lumello	Q78696	5034

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EXAMINER

LU, JIPING

ART UNIT	PAPER NUMBER
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3749

DATE MAILED: 06/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/726,587	Applicant(s) LUMELLO, CARLO	
	Examiner Jiping Lu	Art Unit 3749	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8 is/are rejected.
- 7) ☒ Claim(s) 7 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4/5/2004</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: specification, page 3, last line, to page 4, first line, using of phrases "in claim 1", "in claim 5" in the specification is improper.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, the phrase "and the like" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "and the like"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

Claim Objections

3. Claims 1-4 are objected to because of the following informalities: there is an inconsistency between the language in the preamble and certain portions in the body of the claim, thereby making the scope of the claim unclear. Applicant is required to clarify what the claim is intended to be drawn to i.e., either the manifold alone or the combination of manifold and heating system, and the language of the claim be consistent with the intent.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-6, 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dumser (U. S. Pat. 6,089,263) in view of Shifflett et al. (U. S. Pat. 4,631,212).

Dumser shows a hot water heating system comprising a hollow sleeve element manifold 2, 3 with two transversely opposing apertures (at 6, 15) distributed along the sleeve element manifold 2, 3. Each aperture is mechanically connected to a tubular element 6, 15. Seal elements (not numbered, see Figs. 3-4) are interposed between each tubular element and a respective surface of the manifold. Patent to Shifflett et al. teaches a hot water heating system having a plastic manifold with metal tubular elements same as claimed. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the hot water heating system of Dumser to include a plastic manifold and metal tubular element as taught by Shifflett et al. in order to save the cost and extend the periods of usage. With regard to claims 2, 3 and 5, to modify the apertures of Dumser in a tapered or conical shape would have been an obvious matter of design since the claimed shape does not produce any new or unexpected results. There is no criticality established as to the claimed "tapered" or "conical" shape.

6. Claims 1-6, 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bender (U. S. Pat. 6,736,165) in view of Shifflett et al. (U. S. Pat. 4,631,212).

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Bender shows a hot water heating system comprising a hollow sleeve element manifold 12, 16 with two transversely opposing apertures (not numbered) distributed along the sleeve element manifold 12, 16. Each aperture is mechanically connected to a tubular element (see Fig. 2). Seal elements (not numbered, see Fig. 2) are interposed between each tubular element and a respective surface of the manifold. Patent to Shifflett et al. teaches a hot water heating system having a plastic manifold with metal tubular elements same as claimed. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the hot water heating system of Bender to include a plastic manifold and metal tubular element as taught by Shifflett et al. in order to save the cost and extend the periods of usage. With regard to claims 2, 3 and 5, to modify the apertures of Bender in a tapered or conical shape would have been an obvious matter of design since the claimed shape does not produce any new or unexpected results. There is no criticality established as to the claimed "tapered" or "conical" shape.

Allowable Subject Matter

7. Claim 7 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Cooper et al. (U. S. Pat. 6,578,605) shows a modular vacuum and low pressure valve

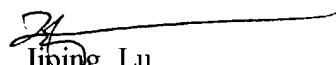
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assembly. Toliusis (U. S. Pat. 4,524,807) shows a fluid manifold includes at least two releasable interconnected modules and a valve assembly.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jiping Lu whose telephone number is 703-308-2354. The examiner can normally be reached on Monday-Friday, 9:00 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ira Lazarus can be reached on 703 308-1935. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jiping Lu
Primary Examiner
Art Unit 3749

J. L.